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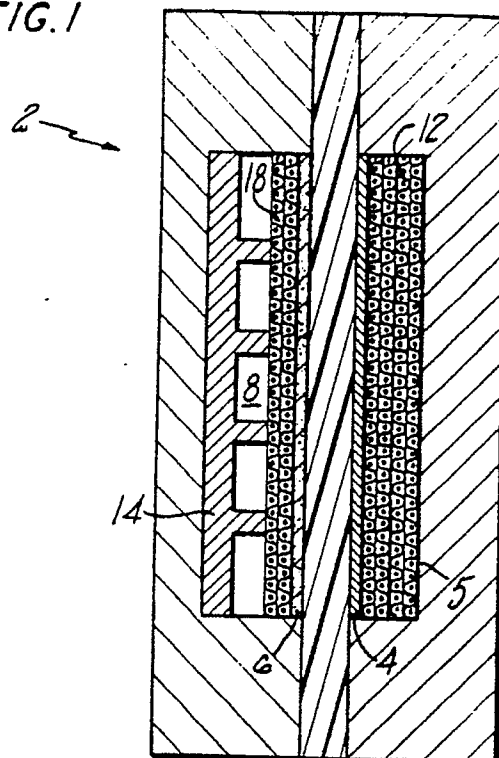
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(54) **Electrolysis cell and method of use.**

(57) The present invention discloses an improved solid polymer electrolysis cell (2) for the reduction of carbon dioxide. The improvement being the use of a cathode (6) having a metal phthalocyanine catalyst which results in the suppression of the formation of hydrogen during the reduction process and the subsequent improved conversion efficiency for carbon dioxide.

FIG. 1**EP 0 390 157 A3**



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EUROPEAN SEARCH REPORT

Application Number

EP 90 10 6050

DOCUMENTS CONSIDERED TO BE RELEVANT					
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)		
A	EP-A-0 050 373 (ORONZIO DE NORA IMPIANTI) * Page 6, lines 26-31; page 7, lines 1-25 * - - -	1	C 25 B 3/04 C 25 B 11/06		
D,A	JOURNAL OF THE ELECTROCHEMICAL SOCIETY, ELECTROCHEMICAL SCIENCE AND TECHNOLOGY, June 1988, pages 1470-1471; "Ambient temperature gas phase Co2 reduction to hydrocarbons at solid polymer electrolyte cells" - - -	1			
A	CHEMICAL ABSTRACTS, vol. 108, no. 26, 27th June 1988, page 440, abstract no. 228382k, Columbus, Ohio, US; D.W. DEWULF et al.: "The electrochemical reduction of carbon dioxide to methane and ethene at copper/Nafion electrodes", & CATAL. LETT. 1988, 1(1-3), 73-9 - - -	1			
A	CHEMICAL ABSTRACTS, vol. 108, no. 8, 22nd February 1988, page 559, abstract no. 64529k, Columbus, Ohio, US; M. MAEDA et al.: "Reduction of carbon dioxide on partially-immersed gold plate electrode and gold-solid polymer electrolyte electrode", & J. ELECTROANAL. CHEM. INTERFACIAL ELECTROCHEM. 1987, 238(1-2), 247-58 - - -	1			
A	US-A-4 673 473 (P.G.P. ANG) * Claims * - - - - -	1			
The present search report has been drawn up for all claims					
Place of search The Hague		Date of completion of search 28 January 91	Examiner GROSEILLER PH.A.		
<table border="0"><tr><td>CATEGORY OF CITED DOCUMENTS X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same category A: technological background O: non-written disclosure P: intermediate document T: theory or principle underlying the invention</td><td>E: earlier patent document, but published on, or after the filing date D: document cited in the application L: document cited for other reasons &: member of the same patent family, corresponding document</td></tr></table>				CATEGORY OF CITED DOCUMENTS X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same category A: technological background O: non-written disclosure P: intermediate document T: theory or principle underlying the invention	E: earlier patent document, but published on, or after the filing date D: document cited in the application L: document cited for other reasons &: member of the same patent family, corresponding document
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